

Claims

We claim:

1. An electric vehicle comprising:
a first wheeled axle electrically driven with only
electric regenerative brakes;
a second wheeled axle, non-driven and with only
5 friction brakes.

2. An electric vehicle as described in claim 1, wherein
said first wheeled axle is a front axle.

3. An electric vehicle as described in claim 1, wherein
said first wheeled axle is a rear axle.

4. A method of braking an electric vehicle which has a
first wheeled axle electrically driven with electric
regenerative brakes and a second wheeled axle which is non-
driven and with only friction brakes, said method comprising:
05 electrically regeneratively braking said first axle
to a first level; and
frictionally braking said second axle to provide a
braking force upon said vehicle greater than said electric
regenerative braking.

5. A method of braking an electric vehicle as described
in claim 4, further comprising:
sensing the headroom available for regeneratively
braking said vehicle; and
dissipating power to provide additional regenerative
braking for said vehicle.

6. A method of braking a vehicle as described in claim 5, wherein said dissipating power is through a thermal resistor.

7. A vehicle comprising:

a first wheeled axle electrically driven with only electric regenerative brakes; and
a second wheeled axle driven by an internal combustion engine with only friction brakes.

8. An electric vehicle as described in claim 7, wherein said internal combustion engine can additionally compression brake said second wheeled axle.

9. A vehicle as described in claim 7, wherein said first wheeled axle is a front axle.

10. A vehicle as described in claim 7, wherein said first wheeled axle is a rear axle.

11. A vehicle as described in claim 7, additionally having a secondary electric motor generator for powering said second wheeled axle.

12. A method of braking a vehicle having a first wheeled axle electrically driven with only electric regenerative brakes and a second wheeled axle driven by an internal combustion engine with friction brakes, said method comprising:

electrically regeneratively braking said first wheeled axle up to a first level; and

frictionally braking said second wheeled axle when
said braking requirement of said vehicle is above said first
10 level.

13. A method of braking a vehicle as described in claim
12, additionally comprising compression braking said first
wheeled axle with said internal combustion engine up to said
first level and above said first level of braking said
5 vehicle.

14. A method as described in claim 12, additionally
comprising the steps of monitoring the headroom of
regenerative braking available and dissipating power to make
more headroom available for regenerative braking.

15. A method of braking a vehicle as described in claim
14, wherein said method of dissipating power is through a
thermal resistor.